

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Previously Presented) A method of undoing changes to the content of at least one database, comprising the steps of:

- (1) storing data in a database;
- (2) sequentially performing a plurality of loads to said database; and
- (3) undoing at least one of said plurality of loads, wherein the undone load is a load performed prior to a most recent load performed to said database;

wherein the resulting content of the database reflects the data as if the undone load had not been performed.

2-5. Canceled.

6. (Previously Presented) A method of undoing changes made to the content of at least one database, comprising the steps of:

- (1) storing data in a database;
- (2) performing a plurality of loads to said database, wherein the load data comprises a load table and the database comprises a target table, and wherein the database table rows and the load table rows are correlated via a primary key; and
- (3) undoing at least one of said plurality of loads;

wherein the resulting content of the database reflects the data as if the undone load had not been performed, and

wherein performing a load in step (2) comprises the steps of:

- i. inserting rows into the target with new key values;
- ii. updating rows in the target table with existing key values; and
- iii. deleting rows from the target table when a row's key value does not exist in the load table.

7. (Original) The method of claim 6, wherein during step (2) i., when inserting a row with a primary key which at some point in the past was deleted prior to said load, those columns

for which the load does not contain data are set to the values that they had when the row was last deleted.

8-10. (Canceled)

11. (Previously Presented) A system for undoing changes to the content of at least one database, comprising:

a processor; and

a memory;

wherein in the memory is stored a database and computer readable instructions such that when the computer readable instructions are executed by the processor the system is adapted to perform the steps of:

(1) storing data in a database;

(2) sequentially performing a plurality of loads to the database; and

(3) undoing at least one of said plurality of loads, wherein the undone load is a load performed prior to a most recent load performed to said database;

wherein the resulting content of the database reflects the data as if the undone load had not been performed.

12-15. Canceled.

16. (Previously Presented) A system for undoing changes made to the content of at least one database, comprising:

a processor; and

a memory;

wherein in the memory is stored a database and computer readable instructions such that when the computer readable instructions are executed by the processor the system is adapted to perform the steps of:

(1) storing data in a database;

(2) performing a plurality of loads to the database, wherein the load comprises a load table and the database comprises a target table, and wherein the database table rows and the load table rows are correlated via a primary key; and

(3) undoing at least one of said plurality of loads;

wherein performing a load in step (2) comprises the steps of:

- i. inserting rows into the target with new key values;
- ii. updating rows in the target table with existing key values; and
- iii. deleting rows from the target table when a row's key value does not exist in the load table,

wherein the resulting content of the database reflects the data as if the undone load had not been performed.

17. (Original) The system of claim 16, wherein during step (2) i., when inserting a row with a primary key which at some point in the past was deleted prior to said load, those columns for which the load does not contain data are set to the values that they had when the row was last deleted.

18-20. (Canceled)

21. (Previously Presented) A computer readable medium storing computer readable instructions that, when executed by a processing unit, cause a data processing device to undo changes to the content of at least one database by performing the steps of:

- (1) storing data in a database;
- (2) sequentially performing a plurality of loads to said database; and
- (3) undoing at least one of said plurality of loads, wherein the undone load is a load performed prior to a most recent load performed to said database;

wherein the resulting content of the database reflects the data as if the undone load had not been performed.

22-25. Canceled.

26. (Previously Presented) A computer readable medium storing computer readable instructions that, when executed by a processing unit, cause a data processing device to undo changes made to the content of at least one database by performing the steps of:

- (1) storing data in a database;
- (2) performing a plurality of loads to said database, wherein the load data comprises a load table and the database comprises a target table, and wherein the database table rows and the load table rows are correlated via a primary key; and
- (3) undoing at least one of said plurality of loads;

wherein the resulting content of the database reflects the data as if the undone load had not been performed, and

wherein performing a load in step (2) comprises the steps of:

- i. inserting rows into the target with new key values;
- ii. updating rows in the target table with existing key values; and
- iii. deleting rows from the target table when a row's key value does not exist in the load table.

27. (Original) The computer readable medium of claim 26, wherein during step (2) i., when inserting a row with a primary key which at some point in the past was deleted prior to said load, those columns for which the load does not contain data are set to the values that they had when the row was last deleted.

28-30. (Canceled)

31. (New) The method of claim 1, further comprising the step of:

- (4) reconstructing a load sequence of said database as it existed prior to step (3),

wherein, subsequent to step (3), the resulting content of the database reflects the data as if the undone load had not been performed and, subsequent to step (4), the resulting content of the database reflects the data as if the one of said plurality of loads had been performed.

32. (New) The method of claim 1, wherein the load data comprises a load table and the database comprises a target table.

33. (New) The method of claim 32, further comprising the step of:

(4) recording information in a second table, separate from said target table, wherein said information corresponds to each modification made to said target table.

34. (New) The method of claim 33, further comprising the step of:

(5) reconstructing a historical state of said target table at a discrete time in said load sequence, wherein said reconstructing is performed based at least in part on the information in the second table.

35. (New) The method of claim 1, further comprising the step of:

(4) reconstructing a load sequence of said target table as it existed just before a load retraction.

36. (New) The method of claim 32, wherein a table structure of a table in a first load is different from a table structure of a table in a second load.

37. (New) The method of claim 32, wherein the database table rows and the load table rows are correlated via a primary key.

38. (New) The method of claim 33, further comprising:

(5) reconstructing a historical state of said database at a discrete time in the load sequence of step (2), wherein said reconstructing is performed based at least in part on information in the second table.

39. (New) The system of claim 11, wherein the computer readable instructions further cause the system to perform the step of:

(4) reconstructing a load sequence of said database as it existed prior to step (3),

wherein, subsequent to step (3), the resulting content of the database reflects the data as if the undone load had not been performed and, subsequent to step (4), the resulting content of the database reflects the data as if the one of said plurality of loads had been performed.

40. (New) The system of claim 11, wherein the load comprises a load table and the database comprises a target table.

41. (New) The system of claim 40, wherein the computer readable instructions further cause the system to perform the step of:

- (4) recording information in a second table, separate from said target table, wherein said information corresponds to each modification made to said target table.

42. (New) The system of claim 41, wherein the computer readable instructions further cause the system to perform the step of:

- (5) reconstructing a historical state of said target table at a discrete time in said load sequence, wherein said reconstructing is performed based at least in part on the information in the second table.

43. (New) The system of claim 11, wherein the computer readable instructions further cause the system to perform the step of:

- (4) reconstructing a load sequence of said target table as it existed just before a load retraction.

44. (New) The system of claim 40, wherein a table structure of a table in a first load is different from a table structure of a table in a second load.

45. (New) The system of claim 40, wherein the database table rows and the load table rows are correlated via a primary key.

46. (New) The system of claim 41, wherein the computer readable instructions further comprise:

- (5) reconstructing a historical state of said database at a discrete time in the load sequence of step (2), wherein said reconstructing is performed based at least in part on information in the second table.

47. (New) The computer readable medium of claim 21, wherein the computer readable instructions further cause the data processing device to perform the step of:

- (4) reconstructing a load sequence of said database as it existed prior to step (3), wherein, subsequent to step (3), the resulting content of the database reflects the data as if the undone load had not been performed and, subsequent to step (4), the resulting content of the database reflects the data as if the one of said plurality of loads had been performed.

48. (New) The computer readable medium of claim 21, wherein the load data comprises a load table and the database comprises a target table.

49. (New) The computer readable medium of claim 48, wherein the computer readable instructions further cause the data processing device to perform the step of:

- (4) recording information in a second table, separate from said target table, wherein said information corresponds to each modification made to said target table.

50. (New) The computer readable medium of claim 49, wherein the computer readable instructions further cause the data processing device to perform the step of:

- (5) reconstructing a historical state of said target table at a discrete time in said load sequence, wherein said reconstructing is performed based at least in part on the information in the second table.

51. (New) The computer readable medium of claim 21, wherein the computer readable instructions further cause the data processing device to perform the step of:

- (4) reconstructing a load sequence of said target table as it existed just before a load retraction.

52. (New) The computer readable medium of claim 48, wherein a table structure of a table in a first load is different from a table structure of a table in a second load.

53. (New) The computer readable medium of claim 48, wherein the database table rows and the load table rows are correlated via a primary key.

54. (New) The computer readable medium of claim 49, wherein the computer readable instructions further comprise:

- (5) reconstructing a historical state of said database at a discrete time in the load sequence of step (2), wherein said reconstructing is performed based at least in part on information in a the second table.